

Disciplinary Style and Child Abuse Potential: Association with Indicators of Positive Functioning in Children with Behavior Problems

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Abstract:

Reduction of ineffective parenting is promoted in parent training components of mental health treatment for children with externalizing behavior disorders, but minimal research has considered whether disciplinary style and lower abuse risk could also be associated with positive functioning in such children. The present study examined whether lower dysfunctional disciplinary style and child abuse risk was associated with children's positive self-concept, adaptive attributional style, and hopefulness. Recruited from children undergoing treatment for disruptive behavior disorders, 69 mother-child dyads participated, with maternal caregivers reporting on their disciplinary style and abuse potential and children reporting independently on their positive functioning (adaptive attributional style, overall self-concept, and hopelessness). Findings supported the hypothesized association, with lower scores on mothers' dysfunctional discipline style and abuse potential significantly predicting children's reported positive functioning. Future research directions pertaining to more adaptive functioning in children with behavior problems are discussed.

Keywords: Disruptive behavior disorders, Parenting, Family relations Parent-child relations, Positive psychology, Externalizing

Article:

Nearly 3 million North American children and adolescents receive mental health services [1], with an estimated 1 in 5 children demonstrating a diagnosable mental disorder [2] despite considerable evidence underscoring children's unmet mental health needs [3]. Proportionally, behavior disorders constitute the bulk of such mental health issues [4], comprising such externalizing disorder diagnoses as Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD) [5]. Consequently, given their pervasiveness, ADHD and disruptive behavior problems attract considerable attention from researchers and practitioners committed to promoting children's mental health.

Treatment of such issues often integrates parent training programs with mixed success (e.g., see [6] for review). Such programs seek to intervene with [7] or even prevent [8] child behavior problems. From an etiological standpoint, debate persists regarding the multiple avenues leading to the development of externalizing disorders [9], although dysfunctional parenting has been implicated in the emergence and/or exacerbation of such childhood difficulties [10]. For example, parents of a clinical sample of children experiencing behavioral difficulties reported engaging in more dysfunctional discipline styles compared to a control group of parents [11]. Certain parenting styles, particularly harsher, authoritarian parenting styles, were also predictive of the development of conduct problems [12]. Similarly, a longitudinal study demonstrated that ineffective and irritable parental discipline and hostile parent attributions of child misbehavior predict increased conduct problems [13]. Therefore, parent training programs often explicitly endeavor to reduce dysfunctional disciplinary approaches in an effort to reduce child problem behaviors [7, 14].

Furthermore, the use of inappropriate physical discipline techniques can also be an unintended precursor for physical abuse, whereby parents inadvertently intensify their application of physical discipline that becomes abusive [15, 16]. Indeed, children with behavior problems invariably engage in disruptive behaviors that prompt parental disciplinary responses, placing these children at risk for maltreatment. Difficult child temperament may

place a child at risk for both behavior problems [9] and maltreatment [17], with indications that children with difficult temperaments are more likely to evidence externalizing problems if they experience more severe parental discipline [18, 19]. Moreover, a study of abusive parents indicated higher levels of children's externalizing behavior problems were predictive of greater child maltreatment severity [20]. Increased child abuse potential is also associated with parents' perception of greater externalizing behavior problems in their children [21]. Collectively, this research implies children with externalizing behavior problems are more likely to experience dysfunctional discipline that places them at risk for maltreatment.

Studies on such risks reflect the larger literature highlighting potential negative outcomes for children with behavior problems (see [22] for review), indicative of a more general inclination for researchers to identify risk factors leading to poor outcome [23]. More recently, the past two decades has witnessed a growing interest in understanding positive outcome [24]. Positive functioning can be manifest in an individual's positive self-concept and sense of competence [25, 26], hopefulness and optimism [27, 28], positive attributional style [29], and social and academic success [30].

Despite the substantial literature on negative short- and long-term outcomes for children with externalizing problems, comparatively less research has been conducted with respect to exploring mechanisms associated with positive functioning in such children. Clearly some children with externalizing disorders display positive functioning, emerging from difficult childhoods as productive adults. Of those studies examining positive functioning, some have evaluated the role of mentors for children with behavior problems [31], or positive peer relationships in moderating the impact of adverse parenting on externalizing problems [32]. Such research evaluates how supportive influences outside the family may aid children experiencing behavior problems.

However, the role of parents and family has been highlighted in fostering children's positive outcome. Effective parenting may deter negative social, academic, and behavioral consequences [33, 34]. Given that child behavior problems are associated with more dysfunctional, harsh, or abusive parenting, and treatment of behavior problems often aims to reduce such parenting practices, it is not surprising that positive parenting is associated with positive emotional adaptation and fewer externalizing behaviors [35]. However, research largely considers positive functioning in these children as displaying fewer externalizing, disruptive behaviors, overlooking whether the child also manifests positive indices of functioning.

Conceptually, rather than regarding negative and positive outcomes as opposites, negative functioning may operate somewhat orthogonally relative to positive functioning, although those indicators may be related [36, 37]. In other words, an individual may evidence qualities of both. Indeed, a growing body of research demonstrates that negative affect is indeed independent of positive affect [38–40]. Consequently, the negative functioning observed in children with behavior problems could also be accompanied by indices of positive functioning.

Therefore, the present investigation examined indicators of positive functioning within a clinical sample of children in treatment for diagnosed externalizing behavior disorders. Children in treatment for disruptive behavior disorders were construed as particularly at-risk for negative outcome because they have been identified by parents and treatment providers as requiring intervention. Thus, the association of dysfunctional parenting to children's positive functioning was investigated. Specifically, maternal caregivers reported on their disciplinary style and child abuse potential independently of their children's report of their positive functioning. Children were asked to report on aspects of their own positive functioning rather than parents, because mothers of these children may perceive and expect problems in their children [41]. Mothers who reported fewer dysfunctional disciplinary approaches and lower child abuse potential were expected to have children who independently reported more positive self-concept, hopefulness, and adaptive attributional style, all of which were considered markers of positive functioning.

Method Participants

Mother–child dyads in this study are a subsample of families participating in a larger study of parents raising children with behavior problems. Families were recruited from referrals to local mental health agencies and a school behavior disorder program. Criteria for inclusion in this study were: a disruptive behavior disorder diagnosis confirmed by the child’s therapist (e.g., ADHD, ODD, CD); a clinically elevated score on the parent-report measure of child behavior problems (see below under CBCL); a maternal caregiver with a child between ages 7–12; and five or fewer sessions of treatment had been conducted (to reduce the possible effects of treatment on the measures).

The sample consisted of 69 mother–child dyads, with 52 boys and 17 girls ranging in age from 7 to 12 (M = 10.33 years; SD = 1.44 years). Maternal caregivers raising these children were largely biological mothers (67.2%), with some stepchildren (3%), adopted children (6%), or other family relationship (e.g., grandmother; 23.9%). For simplicity, all maternal caregivers will be referred to as “mothers” despite their relationship with the child. Mothers’ mean age was 41.11 years (SD = 11.08 years).

The majority of the sample was Caucasian (77.6%), with 14.9% Hispanic, 3% African-American, 1.5% Asian, and 3% classifying themselves as “Other.” Participants were from diverse socioeconomic strata based on reported annual family income (29.2% less than \$14,999; 20% between \$15,000–\$29,999; 13.8% between \$30,000 and \$44,999; 16.9% between \$45,000 and \$59,999; and 20% reporting income of \$60,000 or more). The majority of children lived in homes with two caregivers (65.7%). Mothers indicated that nearly 45% of children were currently taking medication for their difficulties (e.g., Adderall, Ritalin, Concerta, Metadate, and Dexadrin), with some children taking two or more such medications.

Parent-Report Measures

The Child Behavior Checklist (CBCL) [42] was utilized primarily to support the externalizing disorder diagnosis provided by the child’s therapist. The CBCL includes 118 items covering multiple symptom areas, with item scoring based on a frequency scale from 0 to 2. The CBCL provides a Total score assessing difficulties across areas, as well as Internalizing and Externalizing scores, all adjusted to T-scores and accounting for gender and age differences. The widely-used CBCL reports several forms of reliability, with individual item intraclass correlation coefficients greater than .90 [42] and retest stability coefficients at .95 for 1 week and .74 for 1 year [43]. With regard to validity, CBCL Problem Total T-scores have correlated with other measures of child problem behavior [43].

The Parenting Scale [11] is a 30-item measure assessing parental disciplinary responses to children with behavioral problems. Parents respond to questions on how they would handle different parent-child conflicts on a scale of 1–7, with hypothetical parent responses provided at the endpoints. Examples of items include:

When my child misbehaves ...									
I give my child a long lecture	1	2	3	4	5	6	7	I keep my talks short and to the point	
When my child misbehaves ...									
I raise my voice or yell	1	2	3	4	5	6	7	I speak to my child calmly	
I am the kind of parent that ...									
Sets limits on what my child is allowed to do	1	2	3	4	5	6	7	lets my child do whatever he or she wants	

Adaptive discipline strategies are paired with dysfunctional approaches, with adaptive strategies receiving lower scores. The Parenting Scale provides a Total score, averaged across items, indicative of overall dysfunctional disciplinary style. The original factor analysis [11] identified three separate response styles: Overreactivity (10

items representing a harsh, angry discipline style), Laxness (reflecting a permissive approach to parenting), and Verbosity (in which parents rely on verbal persuasion even when ineffective). However, based on a subsequent normative sample with 785 parents of 2–12 year old children [44], factor analysis did not support a separate Verbosity factor. The Parenting Scale demonstrates acceptable internal consistency (Total Score alpha of .84, Overreactivity at .82) and retest reliability across 2 weeks [11]. In the current study, internal consistency of the Parenting Scale Total scores was obtained at .85. Examination of validity identified significant differences between mothers of children with behavior problems and a comparison sample, as well as significant correlations of parent-reported discipline style with observed behavior [11].

The Child Abuse Potential Inventory (CAPI) [45] is a 160-item, self-report instrument asking respondents to agree or disagree with items measuring attitudes and beliefs believed to predict risk to physically abuse children. The CAPI assesses parental characteristics identified in physically abusive parents, including intrapersonal and interpersonal problems and rigidity. Only 77 variably weighted items contribute to the Abuse Scale score and its six factors, with the remainder serving as either distracters/fillers or detection of distortion biases. Sample items include, “Children should never disobey” or “A good child keeps his toys and clothes neat and orderly.” With respect to internal consistency, split-half reliability is reported to range from .96 to .98 and Kuder-Richardson-20 reliability coefficients range from .92 to .95 [45]. Retest reliabilities range from .91 after one day to .75 after 3 months [45]. In terms of predictive validity, studies demonstrate a correct classification rate of 81.4% of confirmed child abusers and 99% of comparison parents [46]. Increased child abuse potential has also been associated with observed harsher, disciplinary style [21, 46].

Child-Report Measures

The Piers-Harris Children’s Self-Concept Scale (PHCSC) [47] was administered to children to measure global self-concept and perceived competence. The PHCSC consists of 80 true/false statements, providing scores for self-concept across six domains, including self-appraisals of academic and social competence, as well as physical appearance and personal satisfaction. The Piers-Harris queries the child on such items as, “I like being the way I am” or “I wish I were different.” Raw scores are converted to T-scores, with higher scores indicative of a more positive self-concept. Psychometrically, reasonable retest stability coefficients are reported (ranging from .71 to .72 across 4 months), as well as adequate internal consistency (ranging from .88 to .93) [47]. In the present sample, consistency was .87. Scores on the Pier-Harris also correlate with other measures of self-concept as well as relevant behavioral and personality measures [47].

The Hopelessness Scale for Children (HSC) [48] was devised from the Beck Hopelessness Scale (BHS) which was empirically designed to assess adult suicide risk and behavior [49]. The HSC consists of 17 true/false statements, assessing negative expectations about oneself and one’s future, with nearly half of the items reversed, worded consistent with optimism. Examples of HSC items include, “I will get more of the good things in life than most other kids” and “When things are going badly, I know they won’t be as bad all of the time.” Elevated total scores are indicative of pessimism and hopelessness. Scores on the HSC were utilized on the premise that low scores would reflect optimism and lower hopelessness. Internal consistency of the HSC has been shown to be high at .97, with a test-retest reliability coefficient over 6 weeks at .52 [48]. Internal consistency for the current sample was similarly high (.95). HSC scores are significantly associated with self-reported depression and negatively associated with self-esteem and social skills [48].

The Children’s Attributional Style Questionnaire [50] is a self-report measure of children’s attributional style. Hypothetical situations vary along three attributional dimensions of internality, stability, and globality (16 items in each dimension), with half of the items involving negative outcomes and half positive outcomes. Children indicate one of two choices that best explains why they think the hypothetical situation in each item happened. For example:

You get an A on a test.

- A. I am smart.
- B. I am good in the subject that the test was in.

You get very good grades.

A. School work is simple.

B. I am a hard worker.

The CASQ Total score, calculated by subtracting scores on the negative situations from the positive situations, yields low scores that correspond to a more maladaptive attributional style. For the present study, higher scores were of interest, reflective of more adaptive attributional style. The CASQ demonstrates moderate internal consistency for the Total score (.73) [50], and in the present sample at .78. The Total score correlates with indices of depression [51], consistent with the learned helplessness model.

Procedure

Institutional Review Board approval was obtained from the university prior to commencing the study. Therapists identified families with a child who met study criteria, and once a recruited family expressed interest in participating in the study, the child's therapist was contacted to confirm a disruptive behavior diagnosis. Subsequently, families were phoned for a session to be conducted in their home at a time of their convenience. Measures for the parents were available in computerized form, with examiners providing a laptop computer in order for parents to enter responses anonymously. The computerized administration was adopted to increase parents' speed of responding and to increase the likelihood of participants' candor in entering responses anonymously. While the parent completed their measures, the child was administered their three measures in a counterbalanced order, read aloud to them as the child silently read from their own form, marking their responses privately. After completing the forms, the children were given an envelope to privately submit their responses. Children's forms were coded with the parent's computer generated identification number, allowing for computer input without using identifying personal information, to ensure that both the parents' and children's responses remained anonymous. Parents were compensated \$20 for their participation in the full study. Children were offered a selection of toys/gifts to choose from (e.g., small toys) to thank them for their participation in this study.

Analyses

Basic analyses were conducted using the SPSS 14.0 for Windows statistical package. Canonical correlation was considered, in which the set of independent variables (scores on the Parenting Scale and the CAPI Abuse Scale) were regressed on the set of dependent variables (scores on children's self-concept, HSC, and CASQ). However, latent-variable structural equation modeling (SEM) was ultimately favored as the statistical means to determine this canonical correlation for several reasons. Canonical correlation analysis and SEM share features in common [52], wherein canonical correlation can be considered a special instance of SEM [53]. Further, canonical correlation analyses often cannot determine the statistical significance of selected variables and SEM is more flexible in evaluating relations between sets, underscoring the advantages of SEM over canonical correlation [53]. Thus, SEM can simultaneously evaluate the measurement components of the model (i.e., whether the observed variables relate to a common underlying construct), provide an estimate of the relationship between the two variable sets, as well as offer overall fit indices.

Structural Equation Modeling was therefore used to assess the canonical correlation, conducted via maximum likelihood estimates of model coefficients using AMOS 6.0 [54]. Overall fit of the model was evaluated using goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), normed fit index (NFI), and root mean square error of approximation (RMSEA) [55, 56]. With respect to these fit indices, GFI, AGFI, and NFI values greater than .90 are ideal, with CFI values at or above .95 preferred; RMSEA values are ideally .05 or below [55, 56]. Typically, better fitting models produce consistent results across several different indices [56]. For the SEM analysis, the latent variable Dysfunctional Parenting included the CAPI Abuse Scale and the Parenting Scale Total scores, and the latent variable Child Positive Functioning included PHCSC, HSC, and CASQ Total scores. In terms of sample size considerations, 10 subjects per estimated parameter are optimal, but smaller samples can be evaluated if the effect is sufficiently strong [56]. A minimum ratio of 5:1 subjects per estimated parameter is recommended [57] as well as a minimum number of subjects per

manifest variable (e.g., 5–10:1) [58]. Given the proposed five manifest variables and 11 free parameters, the present sample size meets these minimally sufficient conditions.

Results

Descriptive Statistics

First, consideration of the CBCL scores confirms the clinical nature of the sample, with the mean CBCL Total T-scores of 70.26 ($SD = 7.16$), as well as elevated CBCL Externalizing scores ($M = 70.28$, $SD = 7.13$) and CBCL Internalizing scores ($M = 65.82$, $SD = 8.89$), all above normal limits. Thus, mothers reported significant levels of clinical symptomatology in these children. However, these CBCL scores were not significantly correlated with children's report of self-concept, attributional style, or hopelessness (all $p > .05$).

Means and standard deviations of measures of interest appear in Table 1. Children participating in this study obtained a mean of 5.48 ($SD = 3.10$) on the HSC, which is within normal limits given that scores of 9–17 suggest clinical levels of hopelessness [59]. With regard to self-concept, children in this study obtained a mean total Piers-Harris T-score ($M = 51.54$, $SD = 11.54$) within normal limits. In terms of children's attributional style, participants in the current sample evidenced overall attributional style significantly lower ($t = 2.90$, $p < .01$) than previously published non-clinical means (cf. [60]), suggesting that children in the present study on average manifest less adaptive explanatory style.

In terms of parents' self-report, responses on the CAPI yielded a mean Abuse Scale score considerably above ($t = 5.46$, $p < .01$) the published normative mean of 91.0 (cf. [45]). Such results support an increased abuse risk among parents raising children with behavior problems. Likewise, with respect to dysfunctional disciplinary style on the Parenting Scale, maternal caregivers in the present sample obtained means similar to those found in a clinic sample of children with behavior problems (cf. [11]), significantly above ($t = 5.25$, $p < .01$) those provided for a non-clinical sample of mothers (cf. [44]).

Table 1 Means, standard deviations, and correlations for parent-report and child-report measures

	<i>M</i>	<i>SD</i>	2	3	4	5
1. Piers-Harris Children's Self Concept Scale <i>T</i> -Score	51.54	11.54	–.64***	.65***	–.28*	–.25*
2. Hopelessness Scale for Children	5.48	3.10		–.49***	.29*	.28*
3. Children's Attributional Style Questionnaire Total	4.46	5.05			–.25*	–.26*
4. Parenting Scale Total	3.36	.81				.66***
5. Child Abuse Potential Inventory Abuse Scale Total	159.45	102.57				

* $p < .05$; ** $p < .01$; *** $p < .001$

Preliminary Analyses and Correlational Analyses

Parent-report and child-report measures were then evaluated for demographic differences. Child's age was not significantly correlated to any of their self-report measures. Younger parents did obtain higher child abuse potential scores ($r = -.32$, $p < .01$) and dysfunctional discipline practice scores ($r = -.31$, $p < .01$), although parents' age was unrelated to any of the children's self-report measures. There were no significant group differences across the measures based on ethnicity (due to small group numbers in some ethnicity categories, collapsed by White versus minority), child gender, medication status (taking medication), or single parent status, with the exception that single parents obtained higher CAPI Abuse Scale scores ($t = 2.81$, $p < .01$). Finally, the various income levels were analyzed using a one-way analysis of variance, identifying no between group differences with the exception of the CAPI Abuse Scale score ($F(4, 60) = 4.22$, $p < .01$). On the CAPI Abuse Scale, the lowest income group ($< \$14,999$) and an intermediate income group ($\$45,000$ – $\$59,999$)

obtained the highest CAPI scores, indicating this relationship between income and abuse potential was not linear. (Subsequent evaluation on the need to control for either parent age or single parent status indicated that these two variables combined altered the canonical correlation variance by less than 2%.)

Correlations among the parent-report and child-report measures appear in Table 1. Examination of this table indicates that the three child-report measures were strongly intercorrelated, demonstrating that the children were generally consistent in their characterization of their positive functioning. Notably, positive self concept was associated with hopefulness and adaptive explanatory styles. With regard to parents' reports, dysfunctional disciplinary style was also predictably strongly associated with their potential to be physically abusive.

SEM Analysis

As depicted in Fig. 1, the prediction of children's positive functioning was accomplished with a latent independent variable of Dysfunctional Parenting, yielding an R^2 of .16. All path coefficients were significant in the measurement model (see Fig. 1 for standardized coefficients supporting the measurement component of the model, i.e., the association of the manifest variables to the latent constructs), with the regression path between the latent variable of dysfunctional parenting to children's positive functioning the path of most interest (.40). Based on the direction of the path coefficients, the findings suggest that lower scores on parents' report of dysfunctional parenting are predictive of higher scores in children's report of positive functioning. In terms of fit indices, all of the fit indices were in the acceptable range, with the GFI calculated at .989 and the AGFI (which adjusts for the number of parameters) at .961. The model also yielded an NFI of .984, which is actually sensitive to small sample sizes, and a CFI at .99. The obtained RMSEA (also susceptible to small sample sizes) was .000, with a confidence interval of .000–.082. Collectively, these fit indices suggest a significant association between the proposed latent factors.

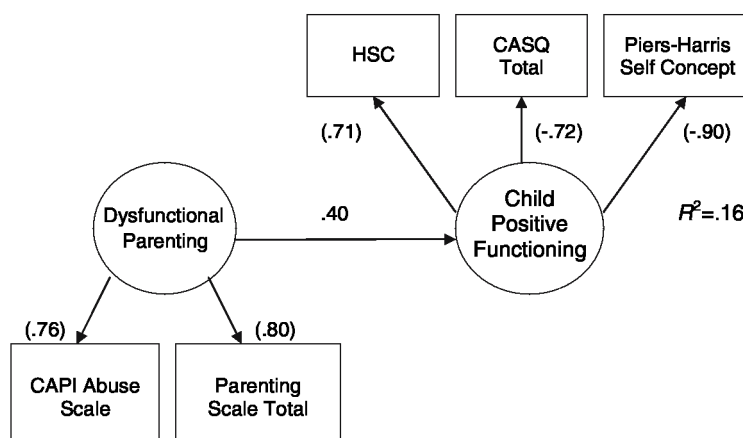


Fig. 1 Structural equation model results with standardized estimates

Discussion

Prior research has linked dysfunctional parenting to the development or exacerbation of behavior disorders in children [10–12], children who are also considered at risk for maltreatment [20]. However, the connection between maladaptive parenting style and positive functioning in children with behavior problems had not been researched. The intent of the present investigation was to ascertain whether low dysfunctional parenting style and abuse risk was predictive of positive functioning in children with behavior problems utilizing independent informants. Based on separate reports from mother–child dyads, findings support the hypothesized connection between parents' lower maladaptive disciplinary style and abuse potential with children's reported positive self-concept, positive attributional style, and lower hopelessness.

Most importantly, parents who reported fewer maladaptive disciplinary practices and lower propensity for child abuse tended to have children with behavior problems who characterized themselves as having more positive self-concepts, more adaptive explanatory styles, and more hopefulness. Although researchers have not typically considered positive functioning in children with disruptive behavior disorders, the present findings are consistent with the risk factor research that has emphasized altering ineffective parenting to reduce externalizing

behavior problems [7, 14]. Theoretically, then, parent-training programs that strive to improve parental disciplinary approaches [6] may not only serve to reduce externalizing behavior difficulties but also be reconceptualized as an opportunity to enhance children's positive functioning.

From the parents' perspective, reports on the Child Behavior Checklist suggested that these children were displaying a wide array of clinical symptoms, which is not surprising for a sample of children actively engaged in treatment. In contrast, children tended to perceive themselves relatively positively, reporting, on average, self-concept and optimism within normal limits but explanatory style somewhat less adaptive than their peers. This apparent contrast between parents and their children may reflect the fact that prior research has documented children and parents often do not agree in their reports [61]. Clearly each member of the parent-child dyad holds a unique perspective.

However, previous research has similarly documented self-reported positive perceived competence in children with behavior problems [62, 63]. Children with behavior problems may in fact engage in such positive self-perceptions as a self-protective function [62]. However, aggressive children who overestimate their competence may actually be at greater risk for elevated behavior problems relative to those who appraise themselves more accurately [64]. Thus, although positive self-concept is typically understood as a quality to be encouraged, this characteristic may be more complex in children with disruptive behavior disorders. Indeed, research needs to delve into the possible ramifications of positive self-concept in this group of children, potentially disentangling what elements of self-competence should be promoted versus those aspects that should be "realistic" appraisals.

Future investigations should consider a number of potential avenues for expansion and clarification of the current findings, as well as addressing some of the present study's limitations. In particular, a study based on a larger sample of children with externalizing behavior problems should be conducted, potentially also not limited to those seeking treatment, in order to replicate our results. Although the number of sessions was capped to five or fewer, both parents and children may have already been influenced by their involvement in therapy. Moreover, participants in the current study may have been atypical in deciding to volunteer to participate in a study. Inclusion of more female children would also be optimal, although boys are well-known to overrepresent those diagnosed with disruptive behavior disorders [5]. And although the present study focused on mothers for the sake of clarity (rather than including a small, selective, and thus potentially unrepresentative sample of fathers), explicitly studying father-child dyads is a needed area of study, particularly as fathers may represent another source of support for the child.

Also, methodologically, the present design fundamentally rests in the correlational domain; thus, the results of the current study cannot address whether lower dysfunctional parenting indeed causes children to function more positively. Moreover, a third unidentified causal factor may possibly influence both parenting and children's positive functioning. A longitudinal design could study the emergence of positive functioning in these children to clarify additional possible causal pathways. Certainly the variance accounted for in the current model leaves considerable room for alternative mechanisms that may also promote positive functioning in this population of children.

Furthermore, the present study sought information independently from maternal caregivers and their children, an approach which represents a strength in the study. Nonetheless, an intriguing direction for future studies would be to obtain contrasting perspectives on the same underlying phenomenon; for example, children could offer their perspective on their parent's disciplinary approaches and parents could add their assessment of their children's positive functioning. Such a design could evaluate the potential convergence of perspectives on these latent constructs while minimizing source bias. Given the differing perspectives obtained between mothers and their children in the present study, multi-informant perspectives are critical, although cross-informant variance remains a challenge [61]. Additionally, expanding the inquiry into the assessment of parents' positive parenting practices and nurturance behaviors (rather than low scores on negative parenting) would also be an informative avenue for research. The present study also employed a measure of hopelessness to gauge children's sense of optimism. Additional studies should incorporate assessments of hopefulness more explicitly, as well as

broadening the scope of other possible markers of positive functioning that children with behavior problems may display.

The present study suggests that efforts to reduce dysfunctional parenting practices may be accompanied not only by reduced problem behavior in children but also potentially positive functioning in children as well. If future research confirms that reduced dysfunctional parenting (and improved positive parenting) could indeed promote positive functioning, parents' own sense of optimism regarding the ability of their children to achieve positive outcome could be enhanced. Faced with the frustrations of raising children with behavior problems and the emphasis on negative outcomes, these parents may welcome strategies that demonstrate positive trajectories. Mental health professionals would be able to deliver more optimistic messages regarding outcome that empower parents to participate in advancing this positive agenda for their children.

Continued study of positive functioning in children with behavior problems is warranted, particularly given the wide prevalence of disruptive behavior disorders [5]. In appreciation of the serious long-term negative sequelae accompanying children with externalizing disorders as they grow into adulthood [22], identifying and encouraging what leads to positive outcomes serves the best interests of these children and families. Future research into the evolving construct of resiliency may lead to uncovering relevant protective or compensatory factors that represent a critical direction for researchers and practitioners interested in promoting the mental health of these children.

Summary

Children with behavior problems are considered at risk for a number of negative outcomes, including maltreatment, given the increased challenges of parenting such children. Treatment thus often includes parent training wherein parents are encouraged to minimize maladaptive parenting and adopt more effective approaches. The present study indicates that lower dysfunctional disciplinary style and child abuse risk is associated with children's positive functioning as well. Mothers of children in treatment for behavior disorders reported on their parenting style and abuse risk whereas their diagnosed children reported on their own self-competence, adaptive attributional style, and hopefulness. Findings suggest that programs that reduce maladaptive parenting approaches may not only reduce children's problem behaviors but potentially augment these children's positive functioning. This study serves as a first attempt to begin to understand how family factors are associated with indicators that lead such at-risk children with behavior problems to become productive adults.

References

1. Weisz JR, Weiss B (1993) Effects of psychotherapy with children and adolescents. Sage, Newbury Park, CA
2. Friedman R, Katz-Leavy J, Manderscheid R, Sondheimer D (1996) Prevalence of serious emotional disturbance in children and adolescents. In: Manderscheid RW, Sonnenschein MA (eds) Mental health, United States, 1996. Center for Mental Health Services, Rockville, MD, pp 71–88
3. Burns BJ, Costello EJ, Angold A, Tweed D, Stangl D, Farmer EM, Erkanli A (1995) Children's mental service use across service sectors. *Health Affairs* 14:147–159
4. Popper CW, Steingard RJ (1994) Disorders usually first diagnosed in infancy, childhood, or adolescence. In: Hales RE, Yudofsky SC, Talbott JA (eds) Textbook of psychiatry, 2nd edn. American Psychiatric Press, Washington, DC, pp 729–831
5. American Psychiatric Association (2000) Diagnostic and statistical manual of mental disorders, 4th edn. (Text Revision). Author, Washington, D.C
6. Lundahl B, Risser HJ, Lovejoy MC (2006) A meta-analysis of parent-training: moderators and follow-up effects. *Clin Psychol Rev* 26:86–104
7. Markie-Dadds C, Sanders MR (2006) Self-directed Triple P (Positive Parenting Program) for mothers with children at-risk of developing conduct problems. *Behav Cognitive Psychother* 34:259–275

8. Shaw DS, Dishion TJ, Supplee L, Gardner F, Arnds K (2006) Randomized trial of a family-centered approach to the prevention of early conduct problems: 2-year effects of the family check-up in early childhood. *J Consult Clin Psychol* 74:1–9
9. Frick PJ, Silverthorn P (2001) Psychopathology in children. In: Adams HE, Sutker PB (eds) *Comprehensive handbook of psychopathology*, 3rd edn. Kluwer/Plenum, New York, pp 881–920
10. Wootton JM, Frick PJ, Shelton KK, Silverthorn P (1997) Ineffective parenting and childhood conduct problems: the moderating role of callous-unemotional traits. *J Consult Clin Psychol* 65:301–308
11. Arnold DS, O’Leary SG, Wolff LS, Acker MM (1993) The parenting scale: a measure of dysfunctional parenting in discipline situations. *Psychol Assessment* 5:137–144
12. Thompson A, Hollis C, Richards D (2003) Authoritarian parenting attitudes as a risk for conduct problems: results from a British national cohort study. *Eur Child Adolesc Psychiatry* 12:84–91
13. Snyder J, Cramer A, Afrank J, Patterson GR (2005) The contribution of ineffective discipline and parental hostile attributions of child misbehavior to the development of conduct problems at home and school. *Dev Psychol* 41:30–41
14. Kendziora KT, O’Leary SG (1993) Dysfunctional parenting as a focus for prevention and treatment of child behavior problems. *Adv Clin Child Psychol* 15:175–206
15. Herrenkohl RC, Herrenkohl EC, Egolf BP (1983) Circumstances surrounding the occurrence of child maltreatment. *J Consult Clin Psychol* 51:424–431
16. Whipple EE, Richey CA (1997) Crossing the line from physical discipline to child abuse: how much is too much? *Child Abuse Negl* 5:431–444
17. Ammerman R (1991) The role of the child in physical abuse: a reappraisal. *Violence Vict* 6:87–101
18. Blackson TC, Tarter RE, Mezzich AD (1996) Interaction between childhood temperament and parental discipline practices on behavioral adjustment in preadolescent sons of substance abuse and normal fathers. *Am J Drug Alcohol Abuse* 22:335–348
19. Stoolmiller M (2001) Synergistic interaction of child manageability problems and parent-discipline tactics in predicting future growth in externalizing behavior in boys. *Dev Psychol* 37:814–825
20. Sprang G, Clark JJ, Bass S (2005) Factors that contribute to child maltreatment severity: a multi-method and multidimensional investigation. *Child Abuse Negl* 29:335–350
21. Haskett ME, Scott SS, Fann KD (1995) Child abuse potential inventory and parenting behavior: relationships with high-risk correlates. *Child Abuse Negl* 19:1483–1495
22. Frick PJ, Loney BR (1999) Outcomes of children and adolescents with oppositional defiant disorder and conduct disorder. In: Quay HC, Hogan AE (eds) *Handbook of disruptive behavior disorders*. Plenum, New York, pp 507–524
23. Masten AS, Wright MOD (1998) Cumulative risk and protection models of child maltreatment. In: Rossman BBR, Rosenberg MS (eds) *Multiple victimization of children: conceptual, developmental, research and treatment issues*. Haworth, Binghamton, NY, pp 7–30
24. Rutter M (1994) Beyond longitudinal data: causes, consequences, changes, and continuity. *J Consult Clin Psychol* 62:928–940
25. Garmezy N, Masten AS (1991) The protective role of competence indicators in children at risk. In: Cummings EM, Greene AL, Karraker KH (eds) *Life span developmental psychology: perspectives on stress and coping*. Lawrence Erlbaum Associates, Hillsdale, NJ, pp 151–174
26. Werner EE, Smith RS (1989) *Vulnerable but invincible: a longitudinal study of resilient children and youth*. Adams, Bannister, and Cox, New York
27. Kashdan TB, Pelham WE, Lang AR, Hoza B, Jacob RG, Jennings JR, Blumenthal JD, Gnagy EM (2002) Hope and optimism as human strengths in parents of children with externalizing disorders: stress is in the eye of the beholder. *J Social Clin Psychol* 21:441–468
28. Seligman MEP (1991) *Learned optimism*. Knopf, New York
29. Zimmerman MA (1990) Toward a theory of learned hopefulness: a structural model analysis of participation and empowerment. *J Res Pers* 24:71–86
30. Weiss LH, Schwarz JC (1996) The relationship between parenting types and older adolescents’ personality, academic achievement, adjustment, and substance use. *Child Dev* 67:2101–2114

31. Zimmerman MA, Bingenheimer JB, Notaro PC (2002) Natural mentors and adolescent resiliency: a study with urban youth. *Am J Community Psychol* 30:221–243
32. Criss MM, Pettit GS, Bates JE, Dodge KA, Lapp AL (2002) Family adversity, positive peer relationships, and children's externalizing behavior: a longitudinal perspective on risk and resilience. *Child Dev* 73:1220–1237
33. Masten AS (2001) Ordinary magic: resilience processes in development. *Am Psychol* 56:227–238
34. Wills TA, Blechman EA, McNamara G (1996) Family support, coping, and competence. In: Hetherington EM, Blechman EA (eds) *Stress, coping, and resiliency in children and families*. Lawrence Erlbaum, Mahwah, NJ, pp 107–133
35. Prevatt FF (2003) The contribution of parenting practices in a risk and resiliency model of children's adjustment. *Brit J Dev Psychol* 21:469–480
36. Feldman B, Russell JA (1998) Independence and bipolarity in the structure of current affect. *J Pers Soc Psychol* 64:1029–1041
37. Tellegen A, Watson D, Clark LA (1999) On the dimensional and hierarchical structure of affect. *Psychol Sci* 10:297–303
38. Chorpita BF, Daleiden EL, Moffitt C, Yim L, Umemoto LA (2000) Assessment of tripartite factors of emotion in children and adolescents I: structural validity and normative data on an affect and arousal scale. *J Psychopathol Behav Assess* 22:141–160
39. Lonigan CJ, Phillips BM, Hooe ES (2003) Relations of positive and negative affectivity to anxiety and depression in children: evidence from a latent variable longitudinal study. *J Consult Clin Psychol* 71:465–481
40. Watson D, Tellegen A (1985) Toward a consensual structure of mood. *Psychol Bull* 98:219–235
41. Mash EJ, Johnston C (1983) Parental perceptions of child behavior problems, parenting self-esteem, and mothers' reported stress in younger and older hyperactive and normal children. *J Consult Clin Psychol* 51:86–99
42. Achenbach TM (1991) *Manual for the child behavior checklist/4–18 and 1991 profile*. University of Vermont Department of Psychiatry, Burlington, VT
43. Achenbach TM, Rescorla LA (2001) *Manual for the ASEBA school-age form and profiles*. University of Vermont, Research Center for Children, Youth, and Families, Burlington, VT
44. Collett BR, Gimpel GA, Greenson JN, Gunderson TL (2001) Assessment of discipline styles among parents of preschool through school-age children. *J Psychopathol Behav Assess* 23:163–170
45. Milner JS (1986) *The child abuse potential inventory: manual*, 2nd edn. Psyctec, Webster, NC
46. Milner JS (1994) Assessing physical child abuse risk: the child abuse potential inventory. *Clin Psychol Rev* 14:547–583
47. Piers EV (1984) *Manual for the Piers-Harris children's self-concept scale*. Western Psychological Services, Los Angeles, CA
48. Kazdin AE, Rodgers A, Colbus D (1986) The hopelessness scale for children: psychometric characteristics and concurrent validity. *J Consult Clin Psychol* 54:241–245
49. Beck AT, Weissman A, Lester D, Trexler L (1974) The measurement of pessimism: the hopelessness scale. *J Consult Clin Psychol* 42:861–865
50. Seligman MEP, Peterson C, Kaslow NJ, Tannenbaum RL, Alloy LB, Abramson LY (1984) Attributional style and depressive symptoms among children. *J Abn Psychol* 93:235–238
51. Thompson M, Kaslow NJ, Weiss B, Nolen-Hoeksema S (1998) Children's attributional style questionnaire-revised: psychometric examination. *Psychol Assess* 10:166–170
52. Fan X (1997) Canonical correlation analysis and structural equation modeling: what do they have in common? *Struct Equ Model* 4:65–79
53. Bagozzi RP, Fornell C, Larcker DF (1981) Canonical correlation analysis as a special case of a structural relations model. *Multivariate Behav Res* 16:437–454
54. Arbuckle JL (2005) *Amos 6.0 [computer software]*. SPSS, Inc, Chicago
55. Byrne BM (2001) *Structural equation modeling with AMOS: basic concepts, application, and programming*. Lawrence Erlbaum Associates, Mahwah, NJ
56. Tabachnick BG, Fidell LS (1996) *Using multivariate statistics*, 3rd edn. Harper Collins, New York
57. Bentler PM (1993) *EQS: structural equations program manual*. BMDP Statistical Software, Los Angeles

58. Schumacker RE, Lomax RG (1996) A beginner's guide to structural equation modeling. Lawrence Erlbaum, Mahwah, NJ
59. Spirito A, Williams CA, Stark LJ, Hart KJ (1988) The hopelessness scale for children: psychometric properties with normal and emotionally disturbed adolescents. *J Abnorm Child Psychol* 16:445–458
60. Nolen-Hoeksema S, Girgus JS, Seligman MEP (1992) Predictors and consequences of childhood depressive symptoms: a 5-year longitudinal study. *J Abnorm Psychol* 101:405–422
61. Achenbach TM, McConaughy SH, Howell CT (1987) Child/adolescent behavioral and emotional problems: implications of cross-informant correlations for situational specificity. *Psychol Bull* 101: 213–232
62. Alvarez V, Adelman HS (1986) Overstatements of self-evaluation by students with psychoeducational problems. *J Learn Disabil* 19:567–571
63. Schor EL, Stidley CA, Malspeis S (1995) Behavioral correlates of differences between a child's assessment and the parents' assessment of the child's self-esteem. *J Dev Behav Pediatr* 16:211–219
64. Edens JF (1999) Aggressive children's self-system and the quality of their relationships with significant others. *Aggression and Violent Behavior* 4:151–177